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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/616,312	07/08/2003	Greg Brannstrom	12888-2	1867

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EXAMINER

TORRES, ALICIA M

ART UNIT	PAPER NUMBER
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3671

DATE MAILED: 04/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/616,312

Applicant(s)

BRANNSTROM, GREG

Examiner

Alicia M Torres

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) ____ is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15, 18-20 and 23-25 is/are rejected.
- 7) ☒ Claim(s) 16, 17, 21, 22, 26 and 27 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

Information Disclosure Statement

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Claim Objections

2. Claims 2 and 7 are objected to because of the following informalities: the " ," at the end of the claim should be changed to a --.--. Appropriate correction is required.

DETAILED ACTION

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 13-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Studer.

5. Studer discloses in a harvester (20) for vine crops, such as tomatoes, wherein the vines are severed near ground level and removed from the ground with severing means (23), where the harvester (20) has a wheel-mounted frame having a forward end, a rear end, a right side, a left

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side and a center, means for moving the harvester (20) forwardly in a field, pickup means (24) adjacent the forward end for picking up crops and attached vines from the field and carrying the crops and vines rearwardly and upwardly, and separating means (25) for separating crops from the vines, an improved separating means (25) comprising:

(a) a drum housing;

(b) a drum assembly disposed within the drum housing, the drum assembly comprising:

(i) a drum (40) having a first end and a second end, the first and second end defining a longitudinal axis oriented transverse to the travel of direction of the harvester (20), and a multiplicity of tines (42) extending radially from the outer peripheral surface of the drum (40); (ii) a first shaft (60) extending through the drum (40); (iii) a first weight housing (150) adjacent and coupled to the first end, the first shaft (60) extending through the first weight housing (150); (iv) a second weight housing (also labeled 150) adjacent and coupled to the second end; (v) a first hydraulic motor (61) coupled to the first shaft (60); and (vi) a second hydraulic motor (46) for rotating the drum connected to the second weight housing (150) with a spring coupling (165), the spring coupling (165) comprising a plurality of springs disposed between two plates (unnumbered); and

(c) a plurality of stationary rods (43) mounted adjacent to the tines (42) of the drum (40) such that the tines (42) pass through the stationary rods (43) as the drum (40) rotates, as per claim 13; and

wherein the first weight housing and the second weight housing each comprise: (i) a plurality of weight shafts (176, 177) secured within each weight housing (150); (ii) a plurality of eccentrically mounted weights (178, 179) mounted on the weight shafts (176, 177); (iii)

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transmission means (170-175) connecting the first shaft (60) to the weight shafts (176, 177) in the weight housings (150) for rotating the eccentrically mounted weights (178, 179) mounted therein, as per claim 14; and

wherein the transmission means comprise a first sheave (170) mounted on the first shaft (60) coupled to the weight shafts (176) of the first weight housing (150) with belts (174) and a second sheave (173) mounted on the first sheave (170) coupled to the weight shafts (177) of the second weight housing (150) with belts (175), as per claim 15.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cetrulo, Jr., hereafter Cetrulo, in view of Hobbs.

8. In regards to claim 1, Cetrulo discloses a harvester for vine crops, such as tomatoes, wherein the vines are severed near ground level and removed from the ground with severing means (115), where the harvester has a wheel-mounted frame having a forward end, a rear end, a right side, a left side and a center, means for moving the harvester forwardly in a field, pickup means (74) adjacent the forward end for picking up crops and attached vines from the field and carrying the crops and vines rearwardly and upwardly, and separating means (111, 112) for separating crops from the vines, an improvement in the pickup means (74) comprising:

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A plurality of ground-engaging conveyors (100) extending from the forward end of the harvester (10), each conveyor (100) having a bottom end and a top end, a cutter (115) attached at the bottom end.

However, Cetrulo fails to disclose a central conveyor and an outrigger conveyor, the central conveyor and outrigger conveyor, the outrigger conveyor pivotally attached to the central conveyor such that the outrigger conveyor may be pivoted from a first position with the outrigger conveyor in the same relative position as the central conveyor, to a second position with the outrigger conveyor at approximately a right angle to the central conveyor.

Hobbs discloses a similar vine conveyor including a central conveyor (B) and an outrigger conveyor (A), the central conveyor (B) and outrigger conveyor (A), the outrigger conveyor (A) pivotally attached to the central conveyor (B) such that the outrigger conveyor (A) may be pivoted from a first position with the outrigger conveyor (A) in the same relative position as the central conveyor (B), to a second position with the outrigger conveyor (A) at approximately a right angle to the central conveyor (B).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the folding conveyor of Hobbs on the harvester of Cetrulo in order to move the conveyors to an inoperative position for storage and transportation.

9. In regards to claim 6, Cetrulo discloses a harvester (10) for vine crops, such as tomatoes, wherein the vines are severed near ground level and removed from the ground with severing means (115), where the harvester (10) has a wheel-mounted frame having a forward end, a rear end, a right side, a left side and a center, means for moving the harvester forwardly in a field,

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pickup means (100) adjacent the forward end for picking up crops and attached vines from the field and carrying the crops and vines rearwardly and upwardly, and separating means (111, 112) for separating crops from the vines, an improvement in the pickup means comprising:

A plurality of ground-engaging conveyors (100) comprising a central conveyor extending from the forward end of the harvester, each conveyor (100) having a bottom end and a top end, a cutter (115) attached at the bottom end.

However, Cetrulo fails to disclose a right-side outrigger conveyor, and a left-side outrigger conveyor, the right-side outrigger conveyor extending from the forward end of the harvester, each conveyor having a bottom end and a top end, the right-side outrigger conveyor pivotally attached to the central conveyor such that the right-side outrigger conveyor may be pivoted from a first position with the right-side outrigger conveyor in the same relative position as the central conveyor, to a second position with the right-side outrigger conveyor at approximately a right angle to the central conveyor, and the left-side outrigger conveyor pivotally attached to the central conveyors such that the left-side outrigger conveyor may be pivoted from a first position with the left-side outrigger conveyor in the same relative position as the central conveyor, to a second position with the left-side outrigger conveyor at approximately a right angle to the central conveyor.

Hobbs discloses a similar vine conveyor including a right-side outrigger conveyor (A), and a left-side outrigger conveyor (C), the right-side outrigger conveyor (A), the right-side outrigger conveyor (A) pivotally attached to the central conveyor (B) such that the right-side outrigger conveyor (A) may be pivoted from a first position with the right-side outrigger conveyor (A) in the same relative position as the central conveyor (B), to a second position with

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the right-side outrigger conveyor (A) at approximately a right angle to the central conveyor (B), and the left-side outrigger conveyor (C) pivotally attached to the central conveyor (B) such that the left-side outrigger conveyor (C) may be pivoted from a first position with the left-side outrigger conveyor (C) in the same relative position as the central conveyor (B), to a second position with the left-side outrigger conveyor (C) at approximately a right angle to the central conveyor (B).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the folding conveyor of Hobbs on the harvester of Cetrulo in order to move the conveyors to an inoperative position for storage and transportation

10. Claims 2, 3, 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cetrulo and Hobbs as applied to claims 1 and 6 above, and further in view of Gilbert.

Cetrulo further discloses wherein each conveyor comprises a drive shaft at the top end, as per claims 2 and 7, and a hydraulic motor coupled to the drive shaft, as per claims 3 and 8.

However, the combination fails to disclose rods connected by a belt at each end of the rods.

Gilbert discloses a similar harvester including rods (unnumbered) connected by a belt at each end of the rods.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the rods of Gilbert on the harvester of Cetrulo and Hobbs in order to aid in lifting.

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11. Claims 4, 5 and 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cetrulo and Hobbs as applied to claims 1 and 6 above, and further in view of Carpenter.

The device is disclosed as applied to claims 1 and 6 above. However, the combination fails to disclose a lower cross-conveyor transversely mounted at the top end of the outrigger conveyor, the lower cross-conveyor transversely mounted at the top end of the outrigger conveyor, the lower cross-conveyor adapted to receive crops and attached vines transported upwardly from the outrigger conveyor, the lower cross-conveyor moving the crops and attached vines from a side of the frame toward the center of the frame, as per claim 4; and

An intermediate endless loop conveyor such that the long axis of the intermediate conveyor is approximately parallel to the center of the harvester, the intermediate conveyor receiving crops and attached vines from the cross-conveyor and transporting the crops and attached vines upwardly to the separating means, as per claims 5, 11 and 12; and

A lower left-cross conveyor transversely mounted at the top end of the left-side outrigger conveyor, the lower left cross-conveyor adapted to receive crops and attached vines transported upwardly from the left-side outrigger conveyor, the lower left-cross conveyor moving the crops and attached vines from the left side of the frame toward the center of the frame, as per claim 9; and

A lower right cross-conveyor transversely mounted at the top end of the right-side outrigger conveyor, the lower right cross-conveyor adapted to receive crops and attached vines transported upwardly from the right-side outrigger conveyor, the lower right cross-conveyor moving the crops and attached vines upwardly to the separating means, as per claim 10.

Carpenter discloses a similar harvester including a lower cross-conveyor (16) transversely mounted at the top end of the outrigger conveyor (7), the lower cross-conveyor (16) transversely mounted at the top end of the outrigger conveyor (7), the lower cross-conveyor (16) adapted to receive crops and attached vines transported upwardly from the outrigger conveyor (7), the lower cross-conveyor (16) moving the crops and attached vines from a side of the frame toward the center of the frame, as per claim 4; and

An intermediate endless loop conveyor (21) such that the long axis of the intermediate conveyor is approximately parallel to the center of the harvester, the intermediate conveyor (21) receiving crops and attached vines from the cross-conveyor (16) and transporting the crops and attached vines upwardly to the separating means (23), as per claims 5, 11 and 12; and

A lower left-cross conveyor (16) transversely mounted at the top end of the left-side outrigger conveyor (7), the lower left cross-conveyor (16) adapted to receive crops and attached vines transported upwardly from the left-side outrigger conveyor (16), the lower left-cross conveyor (16) moving the crops and attached vines from the left side of the frame toward the center of the frame, as per claim 9; and

A lower right cross-conveyor (16) transversely mounted at the top end of the right-side outrigger conveyor (7), the lower right cross-conveyor (16) adapted to receive crops and attached vines transported upwardly from the right-side outrigger conveyor (7), the lower right cross-conveyor (16) moving the crops and attached vines upwardly to the separating means (23), as per claim 10.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the cross-conveyors of Carpenter on the harvester of Cetrulo and Hobbs in order to deliver crop transversely.

12. Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Studer in view of Cetrulo.

Studer discloses in a harvester (20) for vine crops, such as tomatoes, wherein the vines are severed near ground level and removed from the ground with severing means (23), where the harvester (20) has a wheel-mounted frame having a forward end, a rear end, a right side, a left side and a center, means for moving the harvester (20) forwardly in a field, pickup means (24) adjacent the forward end for picking up crops and attached vines from the field and carrying the crops and vines rearwardly and upwardly, and separating means (25) for separating crops from the vines, improvements to the harvester comprising:

(b) the separating means (25) comprising:

(i) a drum housing;

(ii) a drum assembly disposed within the drum housing, the drum assembly comprising:

(1) a drum (40) having a first end and a second end, the first and second end defining a longitudinal axis oriented transverse to the travel of direction of the harvester (20), and a multiplicity of tines (42) extending radially from the outer peripheral surface of the drum (40);
(2) a first shaft (60) extending through the drum (40); (3) a first weight housing (150) adjacent and coupled to the first end, the first shaft (60) extending through the first weight housing (150);

(4) a second weight housing (also labeled 150) adjacent and coupled to the second end; (5) a first hydraulic motor (61) coupled to the first shaft (60); and (6) a second hydraulic motor (46) for rotating the drum connected to the second weight housing (150) with a spring coupling (165), the spring coupling (165) comprising a plurality of springs disposed between two plates (unnumbered); and

(iii) a plurality of stationary rods (43) mounted adjacent to the tines (42) of the drum (40) such that the tines (42) pass through the stationary rods (43) as the drum (40) rotates, as per claim 18; and

wherein the first weight housing and the second weight housing each comprise: (i) a plurality of weight shafts (176, 177) secured within each weight housing (150); (ii) a plurality of eccentrically mounted weights (178, 179) mounted on the weight shafts (176, 177); (iii) transmission means (170-175) connecting the first shaft (60) to the weight shafts (176, 177) in the weight housings (150) for rotating the eccentrically mounted weights (178, 179) mounted therein, as per claim 19; and

wherein the transmission means comprise a first sheave (170) mounted on the first shaft (60) coupled to the weight shafts (176) of the first weight housing (150) with belts (174) and a second sheave (173) mounted on the first sheave (170) coupled to the weight shafts (177) of the second weight housing (150) with belts (175), as per claim 20.

However, Studer fails to disclose:

(a) the pickup means comprising: a plurality of ground-engaging conveyors comprising a central conveyor and an outrigger conveyor, the central conveyor and outrigger conveyor

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extending from the forward end of the harvester, each conveyor having a bottom end and a top end, a cutter attached at the bottom end, as per claim 18.

Cetrulo discloses a harvester wherein the pickup means comprises: a plurality of ground-engaging conveyors (100) comprising a central conveyor and an outrigger conveyor, the central conveyor and outrigger conveyor extending from the forward end of the harvester (10), each conveyor (100) having a bottom end and a top end, a cutter (115) attached at the bottom end.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the conveyors of Cetrulo on the harvester of Studer in order to widen the pickup area.

13. Claims 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Studer in view of Hobbs.

14. Studer discloses in a harvester (20) for vine crops, such as tomatoes, wherein the vines are severed near ground level and removed from the ground with severing means (23), where the harvester (20) has a wheel-mounted frame having a forward end, a rear end, a right side, a left side and a center, means for moving the harvester (20) forwardly in a field, pickup means (24) adjacent the forward end for picking up crops and attached vines from the field and carrying the crops and vines rearwardly and upwardly, and separating means (25) for separating crops from the vines, improvements to the harvester comprising:

(b) the separating means (25) comprising:

(i) a drum housing;

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(ii) a drum assembly disposed within the drum housing, the drum assembly comprising:

(1) a drum (40) having a first end and a second end, the first and second end defining a longitudinal axis oriented transverse to the travel of direction of the harvester (20), and a multiplicity of tines (42) extending radially from the outer peripheral surface of the drum (40); (2) a first shaft (60) extending through the drum (40); (3) a first weight housing (150) adjacent and coupled to the first end, the first shaft (60) extending through the first weight housing (150); (4) a second weight housing (also labeled 150) adjacent and coupled to the second end; (5) a first hydraulic motor (61) coupled to the first shaft (60); and (6) a second hydraulic motor (46) for rotating the drum connected to the second weight housing (150) with a spring coupling (165), the spring coupling (165) comprising a plurality of springs disposed between two plates (unnumbered); and

(iii) a plurality of stationary rods (43) mounted adjacent to the tines (42) of the drum (40) such that the tines (42) pass through the stationary rods (43) as the drum (40) rotates, the conveyor (24) extending from the forward end of the harvester (20), the conveyor (24) having a bottom end and a top end, a cutter (23) attached at the bottom end, as per claim 23; and

wherein the first weight housing and the second weight housing each comprise: (i) a plurality of weight shafts (176, 177) secured within each weight housing (150); (ii) a plurality of eccentrically mounted weights (178, 179) mounted on the weight shafts (176, 177); (iii) transmission means (170-175) connecting the first shaft (60) to the weight shafts (176, 177) in the weight housings (150) for rotating the eccentrically mounted weights (178, 179) mounted therein, as per claim 24; and

wherein the transmission means comprise a first sheave (170) mounted on the first shaft (60) coupled to the weight shafts (176) of the first weight housing (150) with belts (174) and a second sheave (173) mounted on the first sheave (170) coupled to the weight shafts (177) of the second weight housing (150) with belts (175), as per claim 25.

However, Studer fails to disclose the pickup means comprising: a plurality of ground-engaging conveyors comprising a central conveyor and an outrigger conveyor, the central conveyor and outrigger conveyor extending from the forward end of the harvester, each conveyor having a bottom end and a top end, a cutter attached at the bottom end, the outrigger conveyor pivotally attached to the central conveyor such that the outrigger conveyor may be pivoted from a first position with the outrigger conveyor in the same relative position as the central conveyor, to a second position with the outrigger conveyor at approximately a right angle to the central conveyor, as per claim 23.

Hobbs discloses a similar vine conveyor wherein the pickup means comprises: a plurality of ground-engaging conveyors comprising a central conveyor (B) and an outrigger conveyor (A), the outrigger conveyor (A) pivotally attached to the central conveyor (B) such that the outrigger conveyor (A) may be pivoted from a first position with the outrigger conveyor (A) in the same relative position as the central conveyor (B), to a second position with the outrigger conveyor (A) at approximately a right angle to the central conveyor (B), as per claim 23.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the folding conveyor of Hobbs on the harvester of Studer in order to move the conveyors to an inoperative position for storage and transportation.

Allowable Subject Matter

15. Claims 16, 17, 21, 22, 26 and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

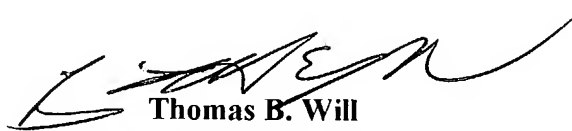
Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Johnson, von Allwoerden, and Patterson et al. have been cited as of interest.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia M. Torres whose telephone number is 703-305-6953. The examiner can normally be reached Monday through Thursday from 7:00 a.m. – 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will, can be reached at 703-308-3870.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is 703-305-1113. The fax number for this Group is 703-872-9306.


Thomas B. Will
Supervisory Patent Examiner
Group Art Unit 3671